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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,011	10/17/2005	Kenneth R Cioletti	56303.012002	3793

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EXAMINER	
WEBB, GREGORY E	
ART UNIT	**PAPER NUMBER**
1751	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/532,011	CIOLETTI ET AL.	
	Examiner	Art Unit	
	Gregory E. Webb	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 1, 4, 5, and 9 is objected to because of the following informalities:

Claims 1 specifies a flash point temperature without units.

Claim 4 incorrectly spells a chemical "propylene glycol no-butyl ether."

Claim 5 incorrectly spells a chemical "pyrolidone."

Claim 9 recites a chemical tradename which are subject to change.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "OFR-2" in claim 9 is a relative term which renders the claim indefinite. Chemical tradenames are subject to change over time. As such the use of tradenames renders a claim indefinite.

Claims 10-13 recites the limitation "flashpoint above" and continues with a temperature such as 150°F or 200°F. However, claim 1 has previously defined the flash point of the aromatic solvent to be "about 100°F." It is not clear to the examiner what range of flash points is being claimed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

It should be noted prior to the examination of these claims that many pure solvents are sold which do not contain naphthalene and have similar properties to those being claimed. For example the pure solvent methylnaphthalene does not contain naphthalene and would have a flash point above 200°F as required by claim 11.

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Abbas, Syed Hasain (US5858955).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Abbas, Syed Hasain teaches the following:

> The water insoluble saturated or unsaturated organic compound used which can be in the microemulsion is used at a concentration of about 1.0 wt. % to about 8 wt. %, more preferably about 2.0 wt. % to about 7 wt. %. The water insoluble saturated or unsaturated organic compound is selected from the group consisting of water insoluble hydrocarbons containing a cycloalkyl group having 5 to 10 carbon atoms, wherein the alkyl or cycloalkyl group can be saturated or unsaturated and the cycloalkyl group can have one or more saturated or unsaturated alkyl groups having 1 to 20 carbon atoms affixed to the alkyl or cycloalkyl group and one or more halogens, alcohols, nitro or ester group substituted on the cycloalkyl group or alkyl group; **aromatic hydrocarbons**; water insoluble ethers; water insoluble carboxylic acids, water insoluble alcohols, water insoluble amines, water insoluble esters, nitropropane, 2,5dimethylhydrofuran, 2-ethyl2-methyl 1,3dioxolane, 3-ethyl 4-propyl tetrahydropyran, N-isopropyl morpholine, alpha-methyl benzyldimethylamine, methyl chloraform and methyl perchlorapropane, and mixtures thereof. Typical hydrocarbons are cyclohexyl-1 decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheplane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene, and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate and isobutyl isobutyrate. Typical water insoluble ethers are di(alphamethyl benzyl) ether, and diphenyl ether. A typical alcohol is phenoxyethanol. A typical water insoluble nitroderivative is nitro propane. (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Abbas, Syed Hasain teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially well known and include the primary aliphatic **alcohol ethoxylates**, secondary aliphatic **alcohol ethoxylates**, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid esters** such as the Tweens (ICI). The nonionic synthetic organic detergents generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether, terpene and the surfactant, Abbas, Syed Hasain teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ethers** are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether, propylene glycol monomethyl ether, ethylene glycol monohexyl ether**, di**ethylene glycol monohexyl ether, propylene glycol tertiary butyl ether, ethylene glycol monoethyl ether, ethylene glycol monomethyl ether, ethylene glycol monopropyl ether, ethylene glycol monopentyl ether**, di**ethylene glycol monomethyl ether**, di**ethylene glycol monoethyl ether**, di**ethylene glycol monopropyl ether**, di**ethylene glycol monopentyl ether**, tri**ethylene glycol monomethyl ether**, tri**ethylene glycol monoethyl ether**, tri**ethylene glycol monopropyl ether**, tri**ethylene glycol monopentyl ether**, tri**ethylene glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. When these **glycol** type co**surfactants** are at a concentration of about 1.0 to about 14 weight %, more preferably about 2.0 weight % to about 10 weight % in combination with a water insoluble hydrocarbon at a concentration of at least 0.5 weight %, more preferably 1.5 weight % one can form a microemulsion composition. (*emphasis added*)

Concerning the EDTA and the sodium xylene sulfonate, Abbas, Syed Hasain teaches the following:

> _____ A
>
> _____ 52.5% sodium laurylalcohol sulfonate 5.3
>
> 45% magnesium lauryl alcohol sulfonate 17.3 59.3% ammonium alkylethoxysulfonate
>
> 1.3EO 29.6 50% alkylpolyglucoside 22.5 76% CAPO 3.9 sodium bisulfite 0.1 denatured
>
> alcohol 0.5 40% **sodium xylene sulfonate** 1.5 41.5% H**EDTA** (chelating agent) 0.2
>
> Fragrance 0.5 color 0.1 water Bal. _____
>
> (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Drapier, Julien (US5840676).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Drapier, Julien teaches the following:

> Typical heterocyclic compounds are 2,5-dimethylhydrofuran,2-methyl-1,3-dioxolane, 2-ethyl 2-methyl 1,3 dioxolane, 3-ethyl 4-propyl tetrahydropyran, 3-morpholino-1 ,2-propanediol and N-isopropyl morpholine A typical amine is alpha-methyl benzyldimethylamine. Typical halogens are 4-bromotoluene, butyl chloroform and methyl perchloropropane. Typical hydrocarbons are 1,3-dimethylcyclohexane, cyclohexyl-1decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheptane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate and isobutyl isobutyrate. Typical water insoluble ethers are di(alphamethyl benzyl) ether and diphenyl ether. Typical alcohols are phenoxyethanol and 3-morpholino-1,2-propanediol. Typical water insoluble nitro derivatives are nitro butane and nitrobenzene. (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Drapier, Julien teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially ell known and include the primary aliphatic **alcohol ethoxylates**, secondary aliphatic **alcohol ethoxylates**, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid esters** such as the Tweens (ICI). The nonionic synthetic organic detergents generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether, terpene and the surfactant, Drapier, Julien teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ethers** are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether, propylene glycol monomethyl ether, ethylene glycol**

monohexyl ether, di**ethylene glycol monohexyl ether**, **propylene glycol tertiary butyl ether**, **ethylene glycol monoethyl ether**, **ethylene glycol monomethyl ether**, **ethylene glycol monopropyl ether**, **ethylene glycol monopentyl ether**, di**ethylene glycol monomethyl ether**, di**ethylene glycol monoethyl ether**, di**ethylene glycol monopropyl ether**, di**ethylene glycol monopentyl ether**, tri**ethylene glycol monomethyl ether**, tri**ethylene glycol monoethyl ether**, tri**ethylene glycol monopropyl ether**, tri**ethylene glycol monopentyl ether**, tri**ethylene glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. When these **glycol** type co**surfactant**s are at a concentartion of about 1.0 to about 14 weight %, more preferably about 2.0 weight % to about 10 weight % in combination with a water insoluble hydrocarbon which is at a concentration of at least 0.5 weight %, more preferably 1.5 weight % one can form a microemulsion composition. (*emphasis added*)

Concerning the flashpoint, Drapier, Julien teaches the following:

A B C D E F G

C.sub.14-16 Paraffin sulfonate sodium salt 17.3 17.3 17.3 17.3 17.3 17.3 17.3 C.sub.13-14 AEOS 2:1 EO 3.7 3.7 3.7 3.7 3.7 3.7 3.7 Cocoamido propyl betaine 5 5 5 5 5 5 5 Nonionic C.sub.9-11 7.5-8 EO 6 6 6 6 6 6 6 LMMEA 2 2 2 2 2 2 2 Ethanol 2 2 2 2 2 2 2 Urea 5 5 5 5 5 5 5 2-methyl-1,3-dioxolane 4 1,3-dimethyl--cyclohexane 4 nitrobenzene 4 3-morpholino-1,2 propanediol 4 butylbenzene 4 isobutyl isobutyrate 4 4-bromotoluene 4 Dipropylene glycol monomethyl ether 6 6 6 6 6 6 6 Propylene glycol Minors 1 1 1 1 1 1 1 Water 48 48 48 48 48 48 48 Appearance @ RT ok ok ok ok ok ok ok Appearance @ 4C ok ok ok ok ok ok ok Brookfield 80 80 105 85 80 70 80 Flash Point (.degree.C.) -- -- -- -- -- -- -- Olive oil emulsification speed (in sec.) 190 282 131 374 124 102 199 Suds titration 4.6 4.8 4.8 4.6 4.7 4.7 4.4

(*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Durbut, Patrick (US5665689).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Durbut, Patrick teaches the following:

> The water insoluble saturated or unsaturated organic compound is used. The water insoluble saturated or unsaturated organic compound is selected from the group consisting of perfumes, essential oils or water insoluble hydrocarbons containing a cycloalkyl group having 5 to 10 carbon atoms, wherein the alkyl or cycloalkyl group can be saturated or unsaturated and the cycloalkyl group can have one or more saturated or unsaturated alkyl groups having 1 to 20 carbon atoms affixed to the alkyl or cycloalkyl group and one or more halogens, alcohols, nitro or ester group substituted on the cycloalkyl group or alkyl group; **aromatic hydrocarbons**; water insoluble ethers; water insoluble carboxylic acids, water insoluble alcohols, water insoluble amines, water insoluble esters, nitropropane, 2,5dimethylhydrofuran, 2-ethyl2-methyl 1,3dioxolane, 3-ethyl 4-propyl tetrahydropyran, N-isopropyl morpholine, alpha-methyl benzyldimethylamine, methyl chloraform and methyl perchlorapropane, and mixtures thereof. Typical hydrocarbons are cyclohexyl-1decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nononane, dimethyl cycloheplane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene, and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate and isobutyl isobutyrate. Typical water insoluble ethers are di(alphamethyl benzyl) ether, and diphenyl ether. A typical alcohol is phenoxyethanol. A typical water insoluble nitro derivative is nitro propane. (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Durbut, Patrick teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially well known and include the primary aliphatic **alcohol ethoxylates**, secondary aliphatic **alcohol ethoxylates**, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid esters** such as the Tweens (ICI). The nonionic synthetic organic detergents generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether, terpene and the surfactant, Durbut, Patrick teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ether**s are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether, propylene glycol monomethyl ether, ethylene glycol monohexyl ether**, di**ethylene glycol monohexyl ether, propylene glycol tertiary butyl ether, ethylene glycol monoethyl ether, ethylene glycol monomethyl ether, ethylene glycol monopropyl ether, ethylene glycol monopentyl ether**, di**ethylene glycol monomethyl ether**, di**ethylene glycol monoethyl ether**, di**ethylene glycol monopropyl ether**, di**ethylene glycol monopentyl ether**, tri**ethylene glycol monomethyl ether**, tri**ethylene glycol monoethyl ether**, tri**ethylene glycol monopropyl ether**, tri**ethylene glycol monopentyl ether**, tri**ethylene glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. When these **glycol** type co**surfactants** are at a concentration of about 0.5 to about 50 wt. %, more preferably about 1.5 wt. % to about 20 wt. %, especially preferably about 2 wt. % to about 15 wt. % in combination with a water insoluble hydrocarbon at a concentration of at least 0.5 weight %, more preferably 1.5 weight % one can form a microemulsion composition. (*emphasis added*)

Concerning the sodium xylene sulfonate and the flashpoint, Durbut, Patrick teaches the following:

> Less preferred solubilizing agents are C.sub.2 -C.sub.3 mono and di-hydroxy alkanols, e.g., ethanol, isopropanol and propylene glycol. Suitable water soluble hydrotropic salts include sodium, potassium, ammonium and mono-, di- and triethanolammonium salts. While the aqueous medium is primarily water, preferably said solubilizing agents are included in order to control the viscosity of the liquid composition and to control low temperature cloud clear properties. Usually, it is desirable to maintain clarity to a temperature in the range of 5.degree. C. to 10.degree. C. Therefore, the proportion of solubilizer generally will be from about 1% to 15%, preferably 2% to 12%, most preferably 3%-8%, by weight of the detergent composition with the proportion of ethanol, when present, being 5% of weight or less in order to provide a composition having a **flash point** above about 46.degree. C. Preferably the solubilizing ingredient will be a mixture of ethanol and a water soluble salt of a C.sub.1 -C.sub.3 substituted benzene sulfonate hydrotrope such as **sodium xylene sulfonate** or sodium cumene

> sulfonate or a mixture of said sulfonates or ethanol and urea. Inorganic alkali metal or alkaline earth metal salts such as sodium sulfate, magnesium sulfate, sodium chloride and sodium citrate can be added at concentrations of 0.5 to 4.0 wt. % to modify the cloud point of the nonionic surfactant and thereby control the haze of the resultant solution. Various other ingredients such as urea at a concentration of about 0.5 to 4.0 wt. % or urea at the same concentration in combination with ethanol at a concentration of about 0.5 to 4.0 wt. % can be used as solubilizing agents. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihelic, Joseph (US5723430).

Concerning the naphthalene depleted aromatic solvent blend, Mihelic, Joseph teaches the following:

> Examples of suitable organic solvents are dichlorotoluene, monochlorotoluene, ortho dichlorobenzene, **methyl naphthalene**, alkyl acetate C.sub.6 to C.sub.13 esters such as Exxon EXXATE.RTM. 900 (C.sub.9), 600 (C.sub.6), 700 (C.sub.7), 800 (C.sub.8), 1000 (C.sub.10), and 1300 (C.sub.13) solvents, m-pyrol sold by GAF and BASF, and terpenes such as GLIDSOL.RTM. 180 sold by SCM and GLIDCO. Preferred solvents are Exxon aromatic solvents 200 and **200 ND** (largely **methyl naphthalene**), dichlorotoluene sold by Oxy Chemical, Exxon EXXATE 900, and aromatic solvents containing substituted mono- and di-alkylnaphthalenes such as Amoco PANASOLAN-3S. (*emphasis added*)

Concerning the aromatic solvent, Mihelic, Joseph teaches the following:

> (a) an organic solvent selected from the group consisting of dichlorotoluene, terpene hydrocarbon, **aromatic hydrocarbon**, oxyalcohol esters, m-pyrol, and mixtures thereof in an amount of from 7 to 18 weight percent; (*emphasis added*)

Concerning the glycol ether and the terpene, Mihelic, Joseph teaches the following:

> Glycol ethers which can be used in the microemulsion cleaners include such as dipropylene **glycol** monomethylether (DPM) or tripropylene **glycol** monomethylether (TPM). Preferably used as the **glycol ether** is DPM. If DPM is used, the amount of **glycol ether** used in the microemulsion cleaner is from 5 to 40 weight percent, preferably 10 to 25 weight percent, most preferably 18 to 22 weight percent, said weight percent is based upon the total weight of the microemulsion cleaner. For the concentrate, the quantity of DPM is preferably from 15-40 weight percent, most preferably 25-35 weight percent. If TPM is used, the amounts used are optimally about 15 percent greater than if DPM is used. (*emphasis added*)

Concerning the surfactant and the ethoxylated nonylphenols, Mihelic, Joseph teaches the following:

> The nonionic **surfactant**s used in the nonionic **surfactant** blends are most typically reaction products of long-chain alcohols with several moles of ethylene oxide having an average molecular weight of about 300 to about 3000. One of the nonionic **surfactant**s of the blend is a lower hydrophillic ethoxylate. The lower hydrophillic ethoxylate is **linear alcohol ethoxylate** where a C.sub.9 -C.sub.11 and/or C.sub.12 -C.sub.18 linear alcohol chain is ethoxylated with an average of 1.0 to 5.0 moles of ethylene oxide per chain, preferably 2.0 to 4.0 moles of ethylene oxide. The other nonionic **surfactant** of the nonionic **surfactant** blend is a higher ethoxylate. The higher ethoxylate is a **linear alcohol ethoxylate** where a C.sub.9 -C.sub.11 and/or C.sub.12 -C.sub.18 linear alcohol chain is ethoxylated with at least 6.0 moles of ethylene oxide per chain, preferably an average of 6.0 to 20.0 moles of ethylene oxide per chain, and most preferably an average of 6.0 moles to 12.0 moles of ethylene oxide per chain. The ratio of lower ethoxylate to higher ethoxylate is from 1:10 to 10:1, preferably from 1:4 to 4:1. (*emphasis added*)

Concerning the corrosion inhibitor, Mihelic, Joseph teaches the following:

> In addition to flashpoint inhibition, the primary amino alcohol acts as a vapor phase, contact phase, and interphase **corrosion inhibitor** in the cleaner equipment by inhibiting flash rusting which is often observed after conventional cleaning. (*emphasis added*)

Concerning the flashpoint, Mihelic, Joseph teaches the following:

> One of the surprising aspects of this invention is that the microemulsion cleaners do not have **flash point**s (they instead cause a flame to be extinguished) even though the components of the microemulsions do, i.e. typical organic solvents have **flash point** in the range 10.degree. C. to 100.degree. C. For instance, 2-amino-2-methyl-1-propanol has a **flash point** of 83.degree. C., and glycol ethers such as DPM has a **flash point** of 74.degree. C. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Claims XXX are anticipated by Farrington, Thomas A. (US5401325).
Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Farrington, Thomas A. teaches the following:

> Examples of suitable organic solvents are dichlorotoluene, monochlorotoluene, ortho dichlorobenzene, **methyl naphthalene**, alkyl esters such as Exxon EXXATE.RTM. 900 solvent (a C.sub.9 alkyl acetate), m-pyrol sold by GAF and BASF, and terpenes such as GLIDSOL.RTM. 180 sold by SCM and GLIDCO. Preferred solvents are Exxon **aromatic solvent**s 200 and **200 ND** (largely **methyl naphthalene**) and dichlorotoluene sold by Oxy Chemical, and Exxon EXXATE 900. (*emphasis added*)

Concerning the glycol ether and the terpene, Farrington, Thomas A. teaches the following:

> Glycol ethers which can be used in the microemulsion cleaners include such as dipropylene **glycol** monomethylether (DPM) or tripropylene **glycol** monomethylether (TPM). Preferably used as the **glycol ether** is DPM. If DPM is used, the amount of **glycol ether** used in the microemulsion cleaner is from 5 to 40 weight percent, preferably 10 to 25 weight percent, most preferably 18 to 22 weight percent, said weight percent is based upon the total weight of the ready-to-use microemulsion cleaner. For the concentrate, the quantity of DPM is preferably from 15-40 weight percent, most preferably 25-35 weight percent. (*emphasis added*)

Concerning the surfactant, Farrington, Thomas A. teaches the following:

> Surfactant blends comprising an anionic **surfactant** and a nonionic **surfactant** are used in the microemulsion cleaners in weight ratios of 20:1 to 1:20, preferably 10:1 to 1:10, most preferably 4:1 to 1:4 based upon the total weight of the **surfactant**s in the blend. The total amount of **surfactant** in the microemulsion cleaner is from 5 to 35 weight percent, preferably 10 to 25 weight percent, most preferably 12 to 18 weight percent. (*emphasis added*)

Concerning the ethoxylated nonylphenols, Farrington, Thomas A. teaches the following:

> The nonionic surfactants used are most typically reaction products of long-chain alcohols with several moles of ethylene oxide having an average molecular weight of about 300 to about 3000. Nonionic surfactants which can be used in the microemulsion cleaners preferably are blends of **linear alcohol ethoxylate**s such as those containing C.sub.9 -C.sub.11 and C.sub.12 -C.sub.18 carbon atoms in the linear alcohol chain ethoxylated with an average of 2.5 and/or 6.0 moles of ethylene oxide per chain. Preferably used are mixtures of C.sub.9 -C.sub.11 linear alcohols ethoxylated with an average of 2.5 and 6.0 moles of ethylene oxide per chain. The ratio of the 6 mole ethoxylates to 2.5 moles ethoxylates in the blend is preferably in the range of 1.5:1 to 2:1. (*emphasis added*)

Concerning the corrosion inhibitor, Farrington, Thomas A. teaches the following:

> In addition to flashpoint inhibition, the morpholine acts as a vapor phase, contact phase, and interphase **corrosion inhibitor** in the cleaner equipment by inhibiting flash rusting which is often observed after conventional cleaning. (*emphasis added*)

Concerning the flashpoint, Farrington, Thomas A. teaches the following:

> One of the surprising aspects of this invention is that the microemulsion cleaners do not have **flash point**s (they instead cause a flame to be extinguished) even though the components of the macroemulsions do, i.e. typical organic solvents have **flash point** in the range 10.degree. C. to 100.degree. C.; morpholine has a **flash point** of 37.degree. C. to 38.degree. C.; and glycol ethers such as DPM has a **flash point** of 74.degree. C. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gomes, Gilbert (US6004920).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Gomes, Gilbert teaches the following:

> Typical heterocyclic compounds are 2,5-dimethylhydrofuran,2-methyl-1,3-dioxolane, 2-ethyl 2-methyl 1,3 dioxolane, 3-ethyl 4-propyl tetrahydropyran, 3-morpholino-1,2-propanediol and N-isopropyl morpholine A typical amine is alpha-methyl benzyldimethylamine. Typical halogens are 4-bromotoluene, butyl chloroform and methyl perchloropropane. Typical hydrocarbons are 1,3-dimethylcyclohexane, cyclohexyl-1 decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheptane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate, isobutyl isobutyrate and, alipathic esters having the formula of: ##STR8## wherein R.sub.12,R.sub.14 and R.sub.15 are C.sub.2 to C.sub.8 alkyl groups, more preferably C.sub.3 to C.sub.7 alkyl groups and R.sub.13 is a C.sub.3 to C.sub.8 alkyl group, more preferably C.sub.4 to C.sub.7 alkyl group and n is a number from 3 to 8, more preferably 4 to 7. (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Gomes, Gilbert teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially well known and include the primary aliphatic **alcohol ethoxylates**, secondary aliphatic **alcohol ethoxylates**, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid esters** such as the Tweens (ICI). The nonionic synthetic organic detergents generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether and the terpene, Gomes, Gilbert teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ether**s are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether**, **propylene glycol monomethyl ether**, **ethylene glycol monohexyl ether**, di**ethylene glycol monohexyl ether**, **propylene glycol tertiary butyl ether**, **ethylene glycol monoethyl ether**, **ethylene glycol monomethyl ether**, **ethylene glycol monopropyl ether**, **ethylene glycol monopentyl ether**, di**ethylene glycol monomethyl ether**, di**ethylene glycol monoethyl ether**, di**ethylene glycol monopropyl ether**, di**ethylene glycol monopentyl ether**, tri**ethylene glycol monomethyl ether**, tri**ethylene glycol monoethyl ether**, tri**ethylene glycol monopropyl ether**, tri**ethylene glycol monopentyl ether**, tri**ethylene glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. (*emphasis added*)

Concerning the surfactant, Gomes, Gilbert teaches the following:

> U.S. Pat. No. 4,671,895 teaches a liquid detergent composition containing an alcohol sulfate **surfactant**, a nonionic **surfactant**, a paraffin sulfonate **surfactant**, an alkyl ether sulfate **surfactant** and water. (*emphasis added*)

Concerning the sodium xylene sulfonate, Gomes, Gilbert teaches the following:

> The instant compositions contain at least one solubilizing agent which can be **sodium xylene sulfonate**, sodium cumene sulfonate, a C.sub.2-3 mono or dihydroxy alkanols such as ethanol, isopropanol and propylene glycol and mixtures thereof. The solubilizing agents are included in order to control low temperature cloud clear properties. Urea can be optionally employed in the instant composition as a supplemental solubilizing agent at a concentration of 0 to about 10 wt. %, more preferably about 0.5 wt. % to about 8 wt. %. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mondin, Myriam (US6475973).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Mondin, Myriam teaches the following:

> Typical heterocyclic compounds are 2,5-dimethylhydrofuran,2-methyl-1,3-dioxolane, 2-ethyl 2-methyl 1,3 dioxolane, 3-ethyl 4-propyl tetrahydropyran, 3-morpholino-1,2-propanediol and N-isopropyl morpholine A typical amine is alpha-methyl benzyldimethylamine. Typical halogens are 4-bromotoluene, butyl chloroform and methyl perchloropropane. Typical hydrocarbons are 1,3-dimethylcyclohexane, cyclohexyl-1 decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheptane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate and isobutyl isobutyrate. Typical water insoluble ethers are di(alphamethyl benzyl)ether and diphenyl ether. Typical alcohols are phenoxyethanol and 3-morpholino-1,2-propanediol. Typical water insoluble nitro derivatives are nitro butane and nitrobenzene. (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Mondin, Myriam teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially well known and include the primary aliphatic **alcohol ethoxylates**, secondary aliphatic **alcohol ethoxylates**, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid esters** such as the Tweens (ICI). The nonionic synthetic organic detergents generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether and the terpene, Mondin, Myriam teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ethers** are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether, propylene glycol monomethyl ether, ethylene glycol**

> **monohexyl ether**, diethylene **glycol monohexyl ether, propylene glycol tertiary butyl ether, ethylene glycol monoethyl ether, ethylene glycol monomethyl ether, ethylene glycol monopropyl ether, ethylene glycol monopentyl ether**, diethylene **glycol monomethyl ether**, diethylene **glycol monoethyl ether**, diethylene **glycol monopropyl ether**, diethylene **glycol monopentyl ether**, triethylene **glycol monomethyl ether**, triethylene **glycol monoethyl ether**, triethylene **glycol monopropyl ether**, triethylene **glycol monopentyl ether**, triethylene **glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. Preferred **glycol ether**s are propylene **glycol** monobutyl ether and dipropyl **glycol** butyl ether. (*emphasis added*)

Concerning the surfactant, Mondin, Myriam teaches the following:

> (b) 0.1% to 5% of a second **surfactant** selected from the group consisting of zwitterionic **surfactant** and anionic **surfactant**s and mixtures thereof, wherein 90% to 100% of said second **surfactant** being in said lower aqueous phase and 0 to 10% of said second **surfactant** being in said upper oily phase; or distributed between said upper and lower phase according to partition coefficient of the said ingredient; (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Erilli, Rita (US6156717).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Erilli, Rita teaches the following:

> Typical heterocyclic compounds are 2,5-dimethylhydrofuran,2-methyl-1,3-dioxolane, 2-ethyl 2-methyl 1,3 dioxolane, 3-ethyl 4-propyl tetrahydropyran, 3-morpholino-1,2-propanediol and N-isopropyl morpholine A typical amine is alphamethyl benzyldimethylamine. Typical halogens are 4-bromotoluene, butyl chloroform and methyl perchloropropane. Typical hydrocarbons are 1,3-dimethylcyclohexane, cyclohexyl-1decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheptane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene and **methyl naphthalene**. Typical

> water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate and isobutyl isobutyrate. Typical water insoluble ethers are di(alphamethyl benzyl) ether and diphenyl ether. Typical alcohols are phenoxyethanol and 3-morpholino-1,2-propanediol. Typical water insoluble nitro derivatives are nitro butane and nitrobenzene. (*emphasis added*)

Concerning the fatty acid alkyl ester, Erilli, Rita teaches the following:

> The present invention relates to novel light duty liquid detergent compositions with high foaming properties and improved cleaning performance, containing an anionic surfactant, cosurfactant, urea, water insoluble organic compound, ethoxylated **methyl ester** and water. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether, terpene and the surfactant, Erilli, Rita teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ether**s are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether, propylene glycol monomethyl ether, ethylene glycol monohexyl ether**, di**ethylene glycol monohexyl ether, propylene glycol tertiary butyl ether, ethylene glycol monoethyl ether, ethylene glycol monomethyl ether, ethylene glycol monopropyl ether, ethylene glycol monopentyl ether**, di**ethylene glycol monomethyl ether**, di**ethylene glycol monoethyl ether**, di**ethylene glycol monopropyl ether**, di**ethylene glycol monopentyl ether**, tri**ethylene glycol monomethyl ether**, tri**ethylene glycol monoethyl ether**, tri**ethylene glycol monopropyl ether**, tri**ethylene glycol monopentyl ether**, tri**ethylene glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. When these **glycol** type co**surfactant**s are at a concentration of about 1.0 to about 14 weight %, more preferably about 2.0 weight % to about 10 weight % in combination with a water insoluble hydrocarbon which is at a concentration of at least 0.5 weight %, more preferably 1.5 weight % one can form a microemulsion composition. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sullivan, Carl J. (US5015410).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Sullivan, Carl J. teaches the following:

> The use of **aromatic hydrocarbons** as the miscibilizing solvent is preferred due to their relatively low cost and effectiveness. Suitable **aromatic hydrocarbons** include, but are not limited to, C.sub.1 -C.sub.8 alkyl derivatives of benzene, naphthalene, and C.sub.1 -C.sub.8, alkyl derivatives of naphthalene, such as toluene, xylene (o, m, or p), cumene, ethyl benzene, mesitylene, durene, sec-amylbenzene, n-butylbenzene, naphthalene, **methyl naphthalene** (.alpha. or .beta.), and the like. Mixtures of **aromatic hydrocarbons** such as aromatic naphtha may also be advantageously employed. Additional examples of suitable commercially available **aromatic hydrocarbons** may be found in Industrial Solvents, 3rd Ed., E. W. Flick, Ed., Noyes Data Corp. (1985), pp. 57-83. (*emphasis added*)

Concerning the glycol ether and the terpene, Sullivan, Carl J. teaches the following:

> Esters may also be used as the miscibilizing solvent, particularly C.sub.4 - C.sub.12 aliphatic and aromatic esters such as n-butyl acetate, vinyl acetate, sec-butyl acetate, ethyl acetate, butyrolactone, amyl acetate, cyclohexyl acetate, amyl propionate, ethylene **glycol** monoacetate, ethylene **glycol** diacetate, ethyl propionate, ethyl n-butyrate, ethyl caprylate, ethyl valerate, methyl benzoate, phenyl acetate, and the like and mixtures thereof. Ketones, especially C.sub.5 - C.sub.12 aliphatic and aromatic ketones, are also suitable for use as the third component. Examples of useful ketones include, but are not limited to, cyclohexanone, ethyl butyl ketone, 4-methoxy-4-methyl-2-pentanone, acetophenone, diisobutyl ketone, methyl isobutyl ketone, methyl amyl ketone, methyl heptyl ketone, isophorone, diethyl ketone, methyl ethyl ketone, mesityl oxide, cyclopentanone, and the like and mixtures thereof. Glycol ethers represent another class of compounds which can be utilized. Preferred **glycol ethers** include C.sub.1 -C.sub.6 alkyl mono- and diethers of C.sub.2 -C.sub.9 alkylene **glycols** such as **propylene glycol monomethyl ether**, propylene **glycol** mono-t-butyl ether, ethylene **glycol** mono-n-butylether, ethylene **glycol** di-n-butyl ether, dipropylene **glycol** mono-methyl ether, tripropylene **glycol** mono-methyl ether, triethylene **glycol** dimethyl ether (triglyme), ethylene **glycol** mono-ethyl ether, propylene **glycol** mono-n-propyl ether, propylene **glycol** mono-n-butyl ether, and the like and mixtures thereof. Glycol ether esters, particularly C.sub.2 -C.sub.4 carboxylic acid esters of C.sub.1 -C.sub.6 alkyl monoethers of C.sub.2 -C.sub.9 alkylene **glycols**, are suitable for use as the miscibilizing solvent in the blends of this invention. Exemplary **glycol ether** esters include, but are not limited to, diethylene **glycol** methyl ether acetate, ethylene **glycol** methyl ether acetate, propylene **glycol** methyl ether acetate, ethylene **glycol** butyl ether acetate, ethylene **glycol** ethyl ether acetate, ethylene **glycol** ethyl ether butyrate, and the

> like and mixtures thereof. Examples of other suitable ketones, esters, **glycol ethers**, and **glycol ether** esters may be found in Industrial Solvents, 3rd Ed., E. W. Flick, Ed., Noyes Data Corp. (1985), pp. 410-436, 469-500, and 591-635. (*emphasis added*)

Concerning the surfactant and the ethoxylated nonylphenols, Sullivan, Carl J. teaches the following:

> Optionally, an additive may be combined with the homogeneous blends of this invention to modify the performance of the coatings remover. For example, a **surfactant** or combination of **surfactants** may be present in order to improve wetting of the coating to be removed and to hasten penetration of the active components. In addition, **surfactants** facilitate water rinsing and water clean-up of the substrate after removal of the coating. Anionic, cationic, nonionic or amphoteric **surfactants** or combinations thereof may be utilized. Preferred types of **surfactants** include, but are not limited to, polyoxyethylene derivatives of aromatic and aliphatic alcohols, (e.g., nonyl phenoxy polyoxyethylene ethanol), alkali metal salts of C.sub.8 to C.sub.22 aliphatic sulfates, (e.g., sodium lauryl sulfate), alkali metal salts of alkyl aromatic sulfonates (e.g., sodium **dodecyl benzene sulf**onate), dialkyl sulfosuccinates (e.g., dioctyl sulfosuccinate), and the like and mixtures thereof. Examples of other suitable **surfactants** are described in Cahn et al, "Surfactants and Detersive Systems", Kirk-Othmer Encyclopedia of Chemical Technology, 3rd Ed., (1983) Vol. 22, pp. 332-432. The concentration of **surfactant** is not critical, but preferably is from about 0.1 to 8 weight percent of the coatings remover composition. (*emphasis added*)

Concerning the corrosion inhibitor, Sullivan, Carl J. teaches the following:

> Accelerators may be included as additives at levels of up to about 20 weight percent of the coatings remover in order to enhance removal of highly resistant coatings. The accelerators are believed to accentuate the performance of the composition by chemically attacking the organic binder of the coating and thereby weakening the adhesion and cohesion of the coating. Exemplary accelerators include C.sub.1 -C.sub.22 carboxylic acids (e.g., formic, acetic, propionic, oleic, oxalic or hydroxyacetic acid) and organoamines (e.g., ethanolamine, diethanolamine, ethylenediaminetetraacetic acid, morpholine, triethanolamine, triethylamine, or 2-(N,N'-diethylamino)ethanol). Organoamine accelerators are preferred. If an acidic accelerator is used, it may be desirable to also incorporate a **corrosion inhibitor** to protect the substrate being stripped. Suitable **corrosion inhibitors** include triethylammonium phosphate and sodium benzoate as well as alkali metal and alkaline earth alkyl aromatic sulfonates. Up to about 3 weight percent **corrosion inhibitor** is typically employed. (*emphasis added*)

Concerning the flashpoint, Sullivan, Carl J. teaches the following:

> A third component of the homogeneous blends of this invention is a miscibilizing solvent selected from the group consisting of aromatic hydrocarbons, esters, ketones, glycol ethers, glycol ether esters, and mixtures thereof. The presence of

> the third component is essential due to the immiscibility of N-methyl-2-pyrrolidone and the aliphatic hydrocarbon components. The third component serves to compatibilize the other two components to provide a one phase blend. The efficacy of the blends of this invention in the removal of certain types of coatings may be controlled as desired by varying the identity of the miscibilizing solvent. Characteristics such as **flash point**, odor, toxicity, environmental acceptance and regulatory compliance may also be readily altered by judicious choice of the third component as will be apparent to those skilled in the art. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Champine, Jeffrey N. (US6369010).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Champine, Jeffrey N. teaches the following:

> The present composition uses a combination of a cleaning solvent and a surfactant to prevent the deposition of contaminants from resinous pulp and/or recycled pulp in the felt press section of a pulp and paper process. The cleaning solvent comprises a blend of **aromatic hydrocarbon**s containing between nine and eleven carbon atoms that preferably has a flash point of greater than 140.degree. F. Although the cleaning solvent includes **aromatic hydrocarbon**s containing between nine and eleven carbon atoms, it can also include **aromatic hydrocarbon**s having less than nine or carbon atoms or having more than eleven carbon atoms in accordance with the invention. Preferably, the cleaning solvent includes at least about 95% **aromatic hydrocarbon**s, more preferably, more than about 98% **aromatic hydrocarbon**s. The cleaning solvent (and the composition itself) is preferably substantially free of naphthalene (e.g. less than 1%). In addition, the present composition effectively cleans the pressing equipment while using a minimal amount of VOC's. An exemplary cleaning solvent for use in the invention is SURE SOL.RTM. 150ND, a C9-C11, **naphthalene-depleted** mononuclear **aromatic solvent** commercially available from Koch Specialty Chemical Company in Houston, Tex. (USA), having a specific gravity of 0.8796, a flash point of about 145.degree. F. and greater than 98% **aromatic hydrocarbon**s. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether, terpene and the flashpoint, Champine, Jeffrey N. teaches the following:

> TABLE 3 Performance of Components and Blends in Removing Ink Type Contaminants (Grease) Treatment Measured Brightness Nonylphenol Ethoxylate (9

moles) 18.7 Nonylphenol Ethoxylate/SURE SOL .RTM. 20.5 150ND 2:1 Blend Branched Tridecyl Alcohol Ethoxylate (8.5 46.4 moles) Branched Tridecyl Alcohol Ethoxylate/ 65.2 SURE SOL .RTM. 150ND 2:1 Blend Solvent Only SURE SOL .RTM. 205 68.4 SURE SOL .RTM. 150ND 67.8 EXXATE .RTM. 800 66.7 d-Limonene 66.0 Aliphatic 140 Solvent 67.3 DOWANOL .RTM. PnB 59.4 Propylene Glycol 16.4 DOWANOL .RTM. DPM 15.9 DOWANOL .RTM. PM 15.9 m-Pyrol 15.6 Tetrahydrofurfuryl alcohol 13.8 Butyl CELLOSOLVE .RTM. 13.4 Surfactant Only Alkyl phenyl oxide disulfonate 13.7 DOWFAX .RTM. 2A1 from Dow 14-16 Olefin Sulfonate BIO TERGE .RTM. 13.7 AS-40 from Stepan Alkyl Benzene Sulfonate BIOSOFT .RTM. 12.7 D-40 from Stepan Phosphate ester with undisclosed structure 11.1 from BASF MAYPHOS .RTM. 8135 SURE SOL .RTM. 205: Mixed aromatic solvent with **flash point** of 205 F. from Koch EXXATE .RTM. 800: Branched alcohol acetic acid ester with Flash point of 171 F. from Exxon Aliphatic 140 Solvent: Generic aliphatic solvent blend with **flash point** of 140 F. from Ashland DOWANOL .RTM. PnB: Propylene **glycol** n-butyl ether from Dow DOWANOL .RTM. DPM: Di**propylene glycol monomethyl ether** from Dow DOWANOL .RTM. PM: Propylene **glycol** monomethyl ether from Dow m-Pyrol: N-methyl-2-pyrrolidone from International Specialty Products Butyl CELLOSOLVE .RTM.: Ethylene **glycol** monobutyl ether from Union Carbide
(*emphasis added*)

Concerning the surfactant and the ethoxylated nonylphenols, Champine, Jeffrey N. teaches the following:

> The present composition preferably includes from 5 to 80% of the aromatic hydrocarbon cleaning solvent, from 15 to 90% of the **alcohol ethoxylate surfactant**, from 0 to 15% of the formulation solvent, from 0 to 20% water, from 0 to 2% of a second **surfactant**, and from 0 to 5% of buffers and other additives, on a mass basis. More preferably, the composition includes from 15 to 45% of the aromatic hydrocarbon cleaning solvent, from 40 to 70% of the **alcohol ethoxylate surfactant**, from 2 to 12% of the formulation solvent, from 2 to 15% water, from 0 to 1% of the second **surfactant**, and from 0 to 5% of buffers and other additives. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Weitz, Gene C. (US5811380).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Weitz, Gene C. teaches the following:

> Aromatic solvents used in the present invention are C.sub.1 -C.sub.8 alkyl derivatives of benzene and naphthalene. Naphthalene-depleted aromatic petroleum distillates are also useful in the present invention. For example toluene, xylene, cumene, ethylbenzene, ethylmethylbenzene, meisitylene and durene are useful in the present invention. (*emphasis added*)

Concerning the fatty acid alkyl ester and the surfactant, Weitz, Gene C. teaches the following:

> The telecommunication industry has traditionally used solvent based cleaning agents to remove filling media, traces of dirt and moisture from electric cable and other equipment. For example, U.S. Pat. No. 5,238,504 to Henry proposes the use of a blend of terpene hydrocarbons and aliphatic or cyclic ketones for use as effective cleaners. U.S. Pat. No. 5,405,547 to Rinehart discloses a combination of diacetone alcohol and a compatible terpene fraction for use as cleaning and drying compositions. U.S. Pat. No. B1 4,411,488 to Matta discloses a combination of a terpene, **surfactant** and coupling agent for use as a cleaning composition. U.S. Pat. No. 4,867,800 to Dishart et al. discloses cleaning compositions which include a terpene compound and a **dibasic ester** for removing residues on the surface of a substrate. (*emphasis added*)

Concerning the terpene, Weitz, Gene C. teaches the following:

> The **terpene** hydrocarbons useful in the present invention include dipentene, alpha-**pinene**, beta-**pinene**, nonal, octanal, para-menthadiene, para-cymene, **limonene**, cedrene, turpentine, 2-methly-6-methylene-2,7-octadiene, 2,6-dimethyl-2,4,6-octadiene, and the like, and mixtures thereof. (*emphasis added*)

Concerning the antioxidant, Weitz, Gene C. teaches the following:

> The present invention is directed to water insoluble cleaning compositions, having preservative and **antioxidant** properties for use in cleaning and preserving insulated telecommunication cable. The water insoluble cleaners of the present invention include a solvent, a preservative oil and an **antioxidant**. In a preferred embodiment, the present invention is directed to a cleaning composition which includes from 80 to 98.45 percent by weight solvent, from 0.5 to 20 percent by weight preservative oil and from 0.05 to 1.0 percent by weight **antioxidant**. In a more preferred embodiment, the composition includes from 80 to 98.45 percent by weight solvent, from 2.0 to 8.0 percent by weight preservative oil and from 0.09 to 0.9 percent by weight **antioxidant**. In a most preferred embodiment, the composition includes 94 percent by weight solvent, 5.88 percent by weight preservative oil and 0.12 percent by weight **antioxidant**. (*emphasis added*)

Concerning the flashpoint, Weitz, Gene C. teaches the following:

> The more preferred solvents are those which are non-flammable, i.e., have **flash point**s above 140.degree. F. and up to 250.degree. F. From an environmental and safety view, the preferred solvents include solvents with **flash point**s of 150.degree. F. or above. Further, the solvents used in the present invention are preferably liquids at ambient temperature. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Michelotti, Francis W. (US5728664).

Concerning the naphthalene depleted aromatic solvent blend, Michelotti, Francis W. teaches the following:

> _____ Stripping Test Stripping Negative Post Bake/ Results; No. Compositions % Photoresist 60 min. .degree.C. % wafer cleared _____ A nonyl phenol KTI-747* none 0 aromatic **200 ND** SC-100** none 0 (25/75) KTI-747 150 0 SC-100 150 0 B dodecylbenzene KTI-747 none <50% sulfonic acid SC-100 none <50% KTI-747 150 <50% SC-100 150 <50% C dodecylbenzene KTI-747 none 100% sulfonic SC-100 none 100% acid 16%, KTI-747 150 100% xylene sulfonic SC-100 150 100% acid 4%, nonyl phenol 10% aromatic, **200 ND** 70% _____ *Polyisoprene type negative resist from Eastman Kodak Co. **negative resist from OlinHunt
> (*emphasis added*)

Concerning the aromatic solvent, Michelotti, Francis W. teaches the following:

> U.S. Pat. No. 4,165,294 to John E. Vander Mey discloses a stripping solution free from chlorinated hydrocarbons comprising a surfactant, an alkylarylsulfonic acid and an **aromatic hydrocarbon** having a boiling point above 150.degree. C. The **aromatic hydrocarbons** are optional and are preferably mixtures of **aromatic solvents** having 9-13 alkyl carbons and do not comprise more than 40 weight percent. The composition does however cause pitting in many photoresist substrates. (*emphasis added*)

Concerning the glycol ether, Michelotti, Francis W. teaches the following:

> After the photoresist has been stripped from the substrate, the substrate is rinsed in any aqueous rinsing liquid. A solvent rinse may follow the stripping step, with solvents such as isopropanol, butyl**cellosolve** or methyl**cellosolve** being used. Since, however, the present compositions are substantially and cleanly water rinseable, it is acceptable to rinse with deionized water of the purity commonly found in semiconductor processing directly after stripping. (*emphasis added*)

Concerning the surfactant, Michelotti, Francis W. teaches the following:

> It has been surprisingly discovered that when a **surfactant** linear monalkylbenzenesulfonic acid is used in combination with an alkyl phenol which acts as an inhibitor and a **surfactant**, such as nonyl phenol, and another sulfonic acid, namely dialkylbenzene sulfonic acid, together with a solvent essentially comprising a mono- or dialkyl naphthalene, there is provided a composition which results in a surprising improvement in removing coatings from negative

> photoresists, which coatings will not redeposit, is cleanly rinseable with water and does not cause corrosion. (*emphasis added*)

Concerning the corrosion inhibitor, Michelotti, Francis W. teaches the following:

> This invention relates to photoresist stripping compositions. More particularly, the invention relates to a non-aqueous chlorine-free negative photoresist stripping composition containing aromatic solvents and a mixture of aromatic sulfonic acids that can be easily rinsed away with water. Moreover, the composition is provided with a **corrosion inhibitor**. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gorlin, Philip (US5929024).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Gorlin, Philip teaches the following:

> The water insoluble saturated or unsaturated organic compound used which can be in the microemulsion is used at a concentration of about 1.0 wt. % to about 8 wt. %, more preferably about 2.0 wt. % to about 7 wt. %. The water insoluble saturated or unsaturated organic compound is selected from the group consisting of water insoluble hydrocarbons containing a cycloalkyl group having 5 to 10 carbon atoms, wherein the alkyl or cycloalkyl group can be saturated or unsaturated and the cycloalkyl group can have one or more saturated or unsaturated alkyl groups having 1 to 20 carbon atoms affixed to the alkyl or cycloalkyl group and one or more halogens, alcohols, nitro or ester group substituted on the cycloalkyl group or alkyl group; **aromatic hydrocarbons**; water insoluble ethers; water insoluble carboxylic acids, water insoluble alcohols, water insoluble amines, water insoluble esters, nitropropane, 2,5dimethylhydrofuran, 2-ethyl2-methyl 1,3dioxolane, 3-ethyl 4-propyl tetrahydropyran, N-isopropyl morpholine, alpha-methyl benzyldimethylamine, methyl chloraform and methyl perchlorapropane, and mixtures thereof. Typical hydrocarbons are cyclohexyl-1 decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheplane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene, and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate and isobutyl isobutyrate. Typical water insoluble ethers are di(alphamethyl benzyl) ether, and diphenyl ether. A typical alcohol is phenoxyethanol. A typical water insoluble nitroderivative is nitro propane. (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Gorlin, Philip teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially well known and include the primary aliphatic **alcohol ethoxylate**s, secondary aliphatic **alcohol ethoxylate**s, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid ester**s such as the Tweens (ICI). The nonionic synthetic organic detergents generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether, terpene and the surfactant, Gorlin, Philip teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ether**s are **ethylene glycol monobutyl ether** (butyl **cellosolve**), di**ethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether, propylene glycol monomethyl ether, ethylene glycol monohexyl ether**, di**ethylene glycol monohexyl ether, propylene glycol tertiary butyl ether, ethylene glycol monoethyl ether, ethylene glycol monomethyl ether, ethylene glycol monopropyl ether, ethylene glycol monopentyl ether**, di**ethylene glycol monomethyl ether**, di**ethylene glycol monoethyl ether**, di**ethylene glycol monopropyl ether**, di**ethylene glycol monopentyl ether**, tri**ethylene glycol monomethyl ether**, tri**ethylene glycol monoethyl ether**, tri**ethylene glycol monopropyl ether**, tri**ethylene glycol monopentyl ether**, tri**ethylene glycol monohexyl ether**, mono, di, **tripropylene glycol monoethyl ether**, mono, di **tripropylene glycol monopropyl ether**, mono, di, **tripropylene glycol monopentyl ether**, mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether and mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. When these **glycol** type co**surfactant**s are at a concentration of about 1.0 to about 14 weight %, more preferably about 2.0 weight % to about 10 weight % in combination with a water insoluble hydrocarbon at a concentration of at least 0.5 weight %, more preferably 1.5 weight % one can form a microemulsion composition. (*emphasis added*)

Concerning the EDTA, Gorlin, Philip teaches the following:

Components Formula %

Sodium alpha olefin sulfonate 22.5

Cocoamido propyl dimethyl 3.5 mole ethoxyl ammonium 0.9 acetate (CAP 3.5 EO Quat OAc) Lauramide DEA 3.0 Triclosan 0.15 Tetrasoium **EDTA** -39% solution 0.13 Polyquaternium 7 0.053 Glycerin 0.01 Aloe vera gel 0.01 Silk peptide and hydrolyzed silk protein 0.08 Fragrance 0.3 Color 0.33 DMDM Hydantoin 0.40 Citric acid 0.25 Sodium chloride 1.60

(*emphasis added*)

Concerning the sodium xylene sulfonate, Gorlin, Philip teaches the following:

> The at least one solubilizing agent can be **sodium xylene sulfonate**, sodium cumene sulfonate, a C.sub.2-3 mono or dihydroxy alkanols such as ethanol, isopropanol and propylene glycol and mixtures thereof. The solubilizing agents are included in order to control low temperature cloud clear properties in a composition containing a solubilizing agent, urea can be optionally employed in the instant composition as a supplemental solubilizing agent at a concentration of 0 to about 10 wt. %, more preferably about 0.5 wt. % to about 8 wt. %. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Libutti, Bruce L. (US5972874).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Libutti, Bruce L. teaches the following:

> Examples of suitable **aromatic solvent**s are methyl napthalene, and Exxon **aromatic solvent**s 100, 150, and 200, and the **naphthalene depleted** versions thereof, and **aromatic solvent**s containing substituted mono- and di-alkylnaphthalenes such as Amoco Pansaol AN-3S. Examples of suitable aliphatic solvents are Exxsol D-60, D-80 and D-110 sold by Exxon, Conoco 145, 170 and 200 solvents, and Shell 142HT. Other solvents may be used including unsaturated solvents such as terpenes, for example Glidsol 180 from SCM Glidco, and oxygen-bearing solvents such as the series of esters Exxate 600, 700, 800, 900 1000 and 1300 from Exxon. The preferred solvents are the aromatic and aliphatic solvents. (*emphasis added*)

Concerning the glycol ether and the terpene, Libutti, Bruce L. teaches the following:

> Glycol ethers which can be used in the microemulsion cleaners include such as dipropylene **glycol** monomethylether (DPM) or tripropylene **glycol** monomethylether (TPM). For purposes of this disclosure and the claims, "**glycol ether**" shall include ethylene **glycol**. Preferably used as the **glycol ether** is DPM. If DPM is used, the amount of **glycol ether** used in the microemulsion cleaner is from 1 to 25 weight percent, typically 10 to 25 weight percent, preferably 18 to 22

> weight percent; and more preferably 2 to 5 percent, depending on the application, where said weight percent is based upon the total weight of the microemulsion cleaner. For the concentrate, the quantity of DPM is preferably from 15-40 weight percent, most preferably 25-35 weight percent. If TPM is used, the amounts used are optimally about 15 percent greater than if DPM is used. (*emphasis added*)

Concerning the surfactant, Libutti, Bruce L. teaches the following:

> The stable microemulsion cleaner contains a nonionic **surfactant** which is an ethoxylate of an aromatic or aliphatic hydrophobe such as a phenyl or substituted phenyl group. Preferably used for environmental reasons are ethoxylates of long chain alcohols having an average molecular weight of about 300 to about 3000. The long chain alcohol is preferably a C.sub.9 -C.sub.11 and/or C.sub.12 - C.sub.18 linear alcohol. The average degree of ethoxylation is 1.0 to 6.0 moles of ethylene oxide per mole of long chain alcohol, preferably 2.0 to 6.0 moles of ethylene oxide. Other nonionic **surfactant**s may be used in conjunction with the long chain ethoxylates provided the HLB of the **surfactant** system is at least 11, preferably from 12.5 to 13.5. The amount of other nonionic **surfactant**s should not exceed 1 to 10 weight percent based upon the weight of the long chain ethoxylates. Useful linear ethoxylated alcohol **surfactant**s are Shell NEODOL.RTM. 91-2.5, 91-6 and 91-8 **surfactant**s. Use of such **surfactant**s results in a stable microemulsion which is stable after several months under storage conditions from .apprxeq.25.degree. C. to .apprxeq.50.degree. (Table II, formulations 1 and 2. (*emphasis added*)

Concerning the ethoxylated nonylphenols, Libutti, Bruce L. teaches the following:

> After formulating, the cleaners were visually tested for initial stability at 25.degree. C. and at 50.degree. C. The results are shown at the Table II. This table indicates that Examples 1 and 2, which contain the aliphatic hydrocarbon solvent (EXXSOL D-110) and at least three weight percent of the non ionic surfactant (NEODOL 91-6), had a lower VOC than the controls, yet were stable microemulsions. The improved stability from the **linear alcohol ethoxylate**s (Formulations 1 and 2) relative to the ester ethoxylate, REXOL 25 J, (Formulation A) is apparent after 3 months. The cleaning effectiveness of the microemulsion cleaners is shown in Table III. (*emphasis added*)

Concerning the corrosion inhibitor and the flashpoint, Libutti, Bruce L. teaches the following:

> The cleaners are easy to handle, mildly alkaline and have a clear to slightly hazy appearance. Although the cleaners may incorporate organic solvents and volatile **corrosion inhibitor**s which have low **flash point**s, they are safe to use because the addition of the primary amino alcohol increases the **flashpoint** of the microemulsion cleaner. (*emphasis added*)

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Broze, Guy (US6369013).

Concerning the naphthalene depleted aromatic solvent blend and the aromatic solvent, Broze, Guy teaches the following:

> Typical heterocyclic compounds are 2,5-dimethylhydrofuran, 2-methyl-1,3-dioxolane, 2-ethyl 2-methyl 1,3 dioxolane, 3-ethyl 4-propyl tetrahydropyran, 3-morpholino-1,2-propanediol and N-isopropyl morpholine. A typical amine is alpha-methyl benzyldimethylamine. Typical halogens are 4-bromotoluene, butyl chloroform and methyl perchloropropane. Typical hydrocarbons are 1,3-dimethylcyclohexane, cyclohexyl-1 decane, methyl-3 cyclohexyl-9 nonane, methyl-3 cyclohexyl-6 nonane, dimethyl cycloheptane, trimethyl cyclopentane, ethyl-2 isopropyl-4 cyclohexane. Typical **aromatic hydrocarbons** are bromotoluene, diethyl benzene, cyclohexyl bromoxylene, ethyl-3 pentyl-4 toluene, tetrahydronaphthalene, nitrobenzene and **methyl naphthalene**. Typical water insoluble esters are benzyl acetate, dicyclopentadienylacetate, isononyl acetate, isobornyl acetate, isobutyl isobutyrate and, alipathic esters having the formula of: ##STR5## (*emphasis added*)

Concerning the fatty acid alkyl ester and the ethoxylated nonylphenols, Broze, Guy teaches the following:

> The water soluble nonionic surfactants utilized in this invention are commercially well known and include the primary aliphatic **alcohol ethoxylates**, secondary aliphatic **alcohol ethoxylates**, alkylphenol ethoxylates and ethylene-oxide-propylene oxide condensates on primary alkanols, such a Plurafacs (BASF) and condensates of ethylene oxide with sorbitan **fatty acid esters** such as the Tweens (ICI). The nonionic synthetic organic surfactants generally are the condensation products of an organic aliphatic or alkyl aromatic hydrophobic compound and hydrophilic ethylene oxide groups. Practically any hydrophobic compound having a carboxy, hydroxy, amido, or amino group with a free hydrogen attached to the nitrogen can be condensed with ethylene oxide or with the polyhydration product thereof, polyethylene glycol, to form a water-soluble nonionic detergent. Further, the length of the polyethenoxy chain can be adjusted to achieve the desired balance between the hydrophobic and hydrophilic elements. (*emphasis added*)

Concerning the glycol ether, dipropylene glycol n-butyl ether and the terpene, Broze, Guy teaches the following:

> Representative members of the polypropylene **glycol** include dipropylene **glycol** and polypropylene **glycol** having a molecular weight of 150 to 1000, e.g., polypropylene **glycol** 400. Other satisfactory **glycol ethers** are **ethylene glycol monobutyl ether** (butyl **cellosolve**), d**iethylene glycol monobutyl ether (butyl carbitol)**, tri**ethylene glycol monobutyl ether**, mono, di, tri propylene **glycol** monobutyl ether, tetra**ethylene glycol monobutyl ether**, mono, di, **tripropylene glycol monomethyl ether**, **propylene glycol monomethyl ether**, **ethylene glycol monohexyl ether**, d**iethylene glycol monohexyl ether**, **propylene glycol tertiary butyl ether**, **ethylene glycol monoethyl ether**, **ethylene glycol**

> **monomethyl ether, ethylene glycol monopropyl ether, ethylene glycol monopentyl ether,** diethylene **glycol monomethyl ether,** diethylene **glycol monoethyl ether,** diethylene **glycol monopropyl ether,** diethylene **glycol monopentyl ether,** triethylene **glycol monomethyl ether,** triethylene **glycol monoethyl ether,** triethylene **glycol monopropyl ether,** triethylene **glycol monopentyl ether,** triethylene **glycol monohexyl ether,** mono, di, **tripropylene glycol monoethyl ether,** mono, di, **tripropylene glycol monopropyl ether,** mono, di, **tripropylene glycol monopentyl ether,** mono, di, tripropylene **glycol** monohexyl ether, mono, di, tributylene **glycol** mono methyl ether, mono, di, tributylene **glycol** monoethyl ether, mono, di, tributylene **glycol** monopropyl ether, mono, di, tributylene **glycol** monobutyl ether, mono, di, tributylene **glycol** monopentyl ether, mono, di, tributylene **glycol** monohexyl ether, ethylene **glycol** monoacetate and dipropylene **glycol** propionate. (*emphasis added*)

Concerning the surfactant, Broze, Guy teaches the following:

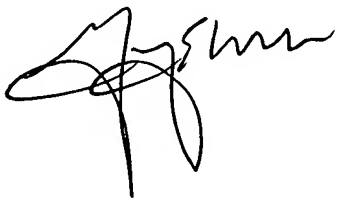
> To achieve the foregoing and other objects and in accordance with the purpose of the present invention, as embodied and broadly described herein the novel, high foaming, light duty liquid detergent of this invention comprises a cationic ammonium compound, a fatty acid monoalkanol amide, an amine oxide, and water and optionally a disinfecting agent, a nonionic **surfactant** selected from the group of ethoxylated nonionic **surfactant,** ethoxylated/propoxylated nonionic **surfactant,** a magnesium containing inorganic compound, and an alkyl polyglucoside **surfactant** and mixtures thereof, wherein the composition does not contain any anionic **surfactant,** a mono- or di-saccharides a polyoxyalkylene glycol fatty acid, a builder, a polymeric thickener, a clay, abrasive, silicas, triclosan, alkaline earth metal carbonates or alkyl glycine **surfactant,** cyclic imidinium **surfactant.** (*emphasis added*)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglass McGinty can be reached on (571)272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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